

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

Attachment No. 1

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PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

Article 5. Window Cleaning. (General Industry Safety Orders)
Amend Section 3291 to read as follows:

§3291. Special Design Considerations -- Permanent Roof Top Installations.

(a) General. A Civil or Mechanical Engineer registered in the State of California shall prepare calculations and/or plans substantiating the structural integrity of all facets of the complete installation, including the eyebrow sleeves, roof davit systems, roof outrigger beams, and roof tie-backs. Such plans shall be available to the Division at the installation site. ~~(Title 24, Part 2, Section 2-8505(a).)~~

(f) Roof Tie-Backs.

(1) Every building constructed 3 stories or 36 feet or more in height, shall have ~~eyebolts~~ roof tie-backs or other permanent devices installed at the roof level for the purpose of securing or tying back suspended scaffold hooks or clamps and safety lines.

EXCEPTIONS:

1. Roof tie-backs are not required on buildings employing other acceptable means of permanently installed roof top maintenance systems specified in this Article or Article 6.

2. ~~Eyebolts for roof~~ Roof tie-backs are not required on buildings constructed up to 4 stories or 48 feet in height when building maintenance can be accomplished using extension tools, ladders, approved ground equipment such as scaffolds, or aerial devices designed and used for positioning personnel.

(2) Such devices should be spaced at approximately 12-foot intervals; however, the spacing shall depend primarily on the availability of roof structural framing members of sufficient strength to safely carry applied loads. Tie-backs may be installed in structural parapets that are of adequate strength to sustain applied loads, but, placement shall be as close to the roof level as practicable. Design criteria for tie-backs shall be as follows:

(A) ~~Drop forged eyebolts or other component of equivalent strength having~~ Roof tie-backs shall have at least a 2-inch inside diameter closed "eye."

(B) Tie-back assembly ~~to~~ shall be hot-dip galvanized or afforded equivalent corrosion resistance.

(C) Assembly and anchorage provisions adequate to sustain a ~~5400~~ 5000 pound ~~(tensile)~~ load applied in any direction without permanent deformation.

~~(3) Roof tie-backs or other devices shall not be installed in a wood roof framing system.~~

~~(4)~~ (3) Suspended scaffolds shall not be permitted unless roof tie-backs or equivalent anchorages are provided. ~~(Title 24, Part 2, Section 2-8505(e).3)~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code; ~~and Section 18943(b), Health and Safety Code.~~

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Article 6. Powered Platforms and Equipment for Building Maintenance (General Industry Safety Orders)

Amend Section 3292 to read:

§3292. General.

(c) Assurance.

(1) Building owners of new installations shall inform the employer before each use in writing that the installation meets the requirements of Sections 3294 and 3295 relating to: required load sustaining capabilities of platforms, building components, hoisting and supporting equipment; stability factors for carriages, platforms and supporting equipment; maximum horizontal force for movement of carriages and davits; design of carriages, hoisting machines, wire rope and stabilization systems; and design criteria for electrical wiring and equipment.

(2) Building owners shall base the information required in subsection (c)(1) of this section on the results of a field test of the installation before it is placed into service and following any major alteration to an existing installation as required in Section 3296. The assurance shall also be based on all other relevant available information, including, but not limited to, test data, equipment specifications and verification by a professional engineer currently registered in the State of California.

(3) Building owners of all installations, new and existing, shall inform the employer in writing that the installation has been inspected, tested and maintained in compliance with the requirements of Sections 3296 and 3297 and that all protection anchorages meet the requirements of Section I paragraph (c)(10) in Appendix C of this article.

(4) Building owners shall make available to employers the manufacturer's instruction manual and all other written documents necessary for the operation and maintenance of the building's permanent powered platform installations.

(5) The employer shall not permit employees to use the installation prior to receiving written assurance from the building owner that the installation meets the requirements contained in subsections (c)(1), (c)(3) and (c)(4) of this section.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code; ~~and Section 18943(b), Health and Safety Code.~~

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Article 6. Powered Platforms and Equipment for Building Maintenance (General Industry Safety Orders)

Amend Section 3295 to read as follows:

§3295. Powered Platform Installations -- Equipment.

(c) Suspension Methods. Elevated building maintenance equipment shall be suspended by a carriage, outriggers, davits or an equivalent method.

(3) Davits.

(A) Every davit installation, fixed or portable, rotatable or non-rotatable shall be designed and installed to ensure that it has a stability factor against failure or overturning of not less than four.

(B) The following requirements apply to roof rigged davit systems:

1. Access to and egress from the working platform shall be from a safe surface. Access or egress shall not require persons to climb over a building's parapet or guard railing; and
2. The working platform shall be provided with wheels, casters or a carriage for traversing horizontally.

(C) The following requirements apply to ground rigged davit systems:

1. The point of suspension shall not exceed 130 feet above a safe surface unless acceptable to the Division;
2. Platform stabilization system(s) shall be provided which meet the requirements of Section 3294(b); and
3. Access and egress to and from the working platform shall only be from a safe surface below the point of suspension.

(D) A rotating davit shall not require a horizontal force in excess of 40 pounds per person to initiate a rotating movement.

(E) 1- A davit or part of a davit weighing more than 80 pounds shall be provided with a means for its transport, which shall keep the center of gravity of the davit at or below 36 inches above the safe surface during transport;

(F) 2- Davits or davit components which weigh more than 140 pounds shall be provided with a mechanical means for hoisting them into position;

(G) Portable davits shall have a maximum reach of 8 feet, 6 inches (2600 mm) and a maximum fully assembled weight of 300 pounds (135 kg).

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(H) 3- Roof-rigged davits shall be provided with pivoting sockets or with bases that will allow the insertion or removal of a davit at a position of not more than 35 degrees above the horizontal, with the complete davit inboard of the building face being serviced;.

(I) 4- A means ~~Means~~ shall be provided to lock the davit to its socket or base before it is used to suspend the platform; ~~and.~~

(J) 5- Portable davit sockets, if used, shall be fitted with wheels to allow ready movement from pedestal to pedestal, shall not require lifting to mate with the pedestal and shall have a pedestal pin attachment connection or positive locking pin connection to the pedestal. Socket/pedestal connections requiring bolts or other threaded fasteners shall not be used.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code; ~~and Section 18943(c), Health and Safety Code.~~

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Amend Section 3296 to read:

§3296. Inspection and Tests.

(a) Installations and Alterations. All completed building maintenance equipment installations shall be inspected and tested in the field before being placed in initial service to determine that all parts of the installation conform to applicable requirements of this article, and that all safety and operating equipment is functioning as required. A similar inspection and test shall be made following any major alteration to an existing installation.

(1) No hoist in an installation shall be subjected to a load in excess of 125 percent of its rated load.

(2) The building owner shall keep a certification record of each inspection and test required under subsection (a) of this section. The certification record shall include the date of the inspection, the signature of the person who performed the inspection, and the number, or other identifier, of the building support structure and equipment which was inspected. This certification record shall be kept readily available for review by the Division and by the employer.

(b) Periodic Inspections and Tests.

(1) Each installation shall undergo a periodic inspection and test at least every 12 months by the equipment manufacturer, authorized representative, or other qualified person acceptable to the Division. All parts of the equipment, including related building support structures, shall be inspected, and where necessary, tested to determine that they are in safe operating condition.

(2) The building owner shall keep a certification record of each inspection and test required under subsection (b)(1) of this section. The certification record shall include the date of the inspection, the signature of the person who performed the inspection, and the number, or other identifier, of the building support structure and equipment which was inspected. This certification record shall be kept readily available for review by the Division and by the employer.

(3) Building safety devices and equipment as described in Section 3282(p)(1)(A) shall be load tested if damage, corrosion or deterioration affecting the load bearing integrity of building safety devices and equipment is detected or suspected.

(A) The safety device or equipment shall be removed from service until repaired or replaced if testing indicates that the load sustaining integrity of a safety device or equipment has been compromised.

(B) A professional engineer experienced in the design of building safety devices and equipment shall inspect and evaluate such equipment when any of the following occur:

1. The design documents are not available;

2. The design is deficient; or

3. Inspections or tests determine that the safety devices or equipment are not safe for use.

(C) Damage to safety devices or equipment, or damage to the building structure from testing operations shall be reported to the building owner.

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(D) If safety deficiencies affecting the load bearing integrity of devices or equipment have not been corrected within 60 days from the date the building owner was notified, the deficiencies shall be reported to the Division by the inspecting agency contracted to perform inspections and/or testing.

(4)(A) Load suspension devices shall not be tested to more than 2 times the rated working load which the device is designed to lift and/or support.

(B) Roof tie-backs shall be tested to no more than 50 percent of their rated capacity. For example, a roof tie-back with a rated capacity of 5000 pounds shall not be tested in excess of 2500 pounds.

(5) Test equipment shall be calibrated at least annually and calibration records shall be available to the Division.

(6) The load testing methodology and load testing procedures for a building's safety devices and equipment shall be prescribed, in writing, by a professional engineer and load tests shall be performed by qualified persons under the direction of the engineer.

(7) (3) Working platforms and their components shall be inspected by the employer for visible defects before every use and after each occurrence which could affect the platform's structural integrity.

(c) Maintenance Inspections and Tests.

(1) A maintenance inspection and, where necessary a test shall be made of each platform installation prior to the start of a work cycle and where the work cycle is more than 30 days, such inspection and/or test shall be made at least every 30 days during the work cycle. This inspection and test shall follow procedures recommended by the manufacturer, and shall be made by a qualified person.

(2) The building owner shall keep a certification record of each inspection and test performed under subsection (c)(1) of this section. The certification record shall include the date of the inspection and test, the signature of the person who performed the inspection and/or test, and an identifier for the platform installation which was inspected. The certification record shall be kept readily available for review by the Division and by the employer.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code; ~~and Section 18943(c), Health and Safety Code.~~